

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Attachment No. 1

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PROPOSED STATE STANDARD,
TITLE 8, DIVISION 1, CHAPTER 4

Subchapter 4, Construction Safety Orders, Article 14, Construction Hoists

Amend Section 1604.24 to read:

§1604.24. Operating Devices and Control Equipment.

(a) Operation and Operating Devices.

(1) Types of Operating Devices. All operating devices shall be of the enclosed electric type. Rope or rod operating devices actuated directly by hand, or rope operating devices actuated by wheels, levers, or cranks, shall not be used.

(2) Operating Devices for Car-Switch Operation Hoists. Handles of lever-type operating devices of car-switch operation hoists shall be so arranged that they will return to the stop position when the hand of the operator is removed. Car-switch push-buttons shall be of the constant-pressure type so that when the hand is removed from the button the car will stop.

(3) Top-of-Car Operation During Inspection, Maintenance, Repair, Tower Erection and Dismantling.

(A) When an inspector is persons are stationed on top of a car in performance of his normal duties, for the purposes of inspection, maintenance, repair, tower erection or dismantling, the car shall be operated, when required, by an a competent authorized operator inside the car and by means of the normal operating devices using car top operating devices. In addition, during inspection and maintenance the car shall be operated in response to voice command of the inspector and only in the slowest speed. An emergency stop button located on top of the car shall be provided for use by the inspector to stop the car at any point of travel. A guardrail shall be provided on top of cantilever type cars. The guardrail shall be approximately 42 inches in height with an intermediate rail.

(B) Car top operating devices shall conform to the requirements of subsection (a)(2), and be installed in such a manner that the in-car operating devices are not functional when car top operation is selected. The car top operating devices shall include an emergency stop button, conforming to the requirements of Section 1604.24(b)(4) that when activated will stop the car at any point of travel.

(C) Car top operating devices shall be so located and arranged to prevent inadvertent exposure of the operator to hazards of contact with moving counterweights and stationary elements of the hoist tower, tower tie-ins, or adjacent structure.

(D) The tops of cars shall be enclosed by a standard guardrail and toeboard meeting the specifications of Section 3209 of the General Industry Safety Orders except that for the purposes of this subsection, the area between the car top and the midrail may be filled with screen material with maximum openings that will reject a ¾ inch diameter ball.

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(b) Electrical Protective Devices.

Electrical protective devices shall be provided in accordance with the following requirements:

(4) Emergency Stop Switch.

An emergency stop switch shall be provided in the car and located in, or adjacent to, the car operating panel. When opened, this switch shall cause the electric power to be removed from the hoist driving machine motor and brake. Emergency stop switches shall have the following characteristics:

- (A) They shall be of the manually opened and closed type.
- (B) They shall have red operating handles or buttons.
- (C) They shall be conspicuously and permanently marked "STOP."
- (D) They shall be positively opened mechanically and their opening shall not be solely dependent on springs.

(5) Broken-Rope, Tape, or Chain Switches Used in Connection With Machine-Room Normal-Terminal Stopping Switches.

Broken-rope, tape, or chain switches shall be provided in connection with normal-terminal stopping devices located in machine rooms of traction hoists. Such switches shall be opened by a failure of the rope, tape, or chain.

~~(6) Stop Switch on Top of Car.~~

~~A stop switch conforming to the requirements of Section 1604.24(b)(4) shall be provided on the top of every hoist car. [moved to new subsection (a)(3)(B)]~~

~~(7)~~ (6) Car-Safety-Mechanism Switch.

A switch conforming to the requirements of Sections 1604.19(f), 1604.20(d)(1), and 1604.20(d)(3) shall be required where a car safety is provided.

~~(8)~~ (7) Speed-Governor Overspeed Switch.

A speed-governor over-speed switch shall be provided when required by Section 1604.20(d)(1) and shall conform to the requirements given under Sections 1604.20(d)(2) and 1604.20(d)(3).

~~(9)~~ (8) Final-Terminal Stopping Devices.

Final-terminal stopping devices conforming to the requirements given under Section 1604.23(c) shall be provided.

~~(10)~~ (9) Terminal Speed-Limiting Devices.

Where reduced-stroke oil buffers are provided or car rated speed exceeds 300 feet per minute, emergency terminal stopping devices conforming to the requirements given under Section 1604.23(d) shall be provided.

~~(11)~~ (10) Compensating-Rope-Sheave Switch.

Compensating-rope sheaves, when used, shall be provided with a compensating-rope-sheave switch or switches mechanically opened by the compensating-rope sheave before the sheave reaches its upper or lower limit of travel, to cause the electric power to be removed from the elevator driving-machine motor and brake. *(Editorial note: Shaded hyphen means delete hyphen)*

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~~(12)~~ (11) Primary Magnetic Switch.

A primary magnetic contactor shall be provided for main power disconnect, in addition to the normal service disconnect switch as required by Section 1604.24(d). The primary magnetic contactor shall perform its power disconnect function upon any interruption of the final-terminal stopping devices and all other electrical safety devices.

~~(13)~~ (12) Car Door or Gate Electric Contacts.

Car door or gate electric contacts conforming to the requirements given under Section 1604.18(b) shall be provided for all hoists.

~~(14)~~ (13) Normal-Terminal Stopping Devices.

Normal-terminal stopping devices conforming to the requirements given under Section 1604.23(b) shall be provided for every hoist.

~~(15)~~ (14) Motor-Generator Overspeed Protection.

Means shall be provided to cause the electric power to be removed automatically from the hoist driving-machine motor and brake should a motor-generator set, driven by a DC motor, overspeed.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend the title of Section 1604.26 to read:

§1604.26. Inspection, ~~and~~ Tests and Operation of Personnel Hoists.

(a) Acceptance Inspections and Tests of New Installations and Alterations. In order to ensure the safe operation of new hoists, such devices shall, on their completion and before being placed in service, be subjected to an acceptance inspection and tests in the field to determine that all parts of the installation conform to the applicable requirements of this Standard and that all safety equipment functions as required. A similar inspection and test shall be made following a major alteration of an existing installation and at any time the hoist is moved to a new location. (A jump of the tower after initial installation shall not be considered a major alteration.) Records shall be maintained and kept on file at the job site for the duration of the job.

(c) Operation. Hoists shall be operated only by a competent authorized operator, in the car, or stationed adjacent to the driving machine subject to the following conditions:

- (1) A regular attendant is stationed in the car.
- (2) A constant-pressure-type switch shall be provided in the car, which must be held manually in the closed position by the attendant in the car in order to permit operation of the driving machine and which shall be opened automatically when released by the operator during normal or emergency stop operations.
- (3) A means of closed voice communication shall be provided between the car attendant and the operator stationed adjacent to the driving machine.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.